



National Association for Continence Recommendations: Urinary Incontinence in Older Persons

Urinary incontinence (UI) is most easily defined as the leakage of urine sufficient to be a problem or the involuntary loss of urine. While there are different types of UI, all are characterized by an inability to control urinary voiding.¹

UI can be clinically distinguished as either transient and reversible or persistent and established. The persistent and established category can then be further subdivided into four basic types as detailed in Table 1.

Although persons with moderate-to-severe dementia often have UI, even severely demented individuals

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remain continent if they have sufficiently preserved mobility. Caregivers and family members alike should know that UI in demented persons often is not directly related to dementia but, instead, has treatable causes and precipitants that can be improved or cured.

For the assisted living (AL) resident, the importance of the link between immobility and UI must be stressed. Research in long-term care facilities has found that ambulatory residents with low levels of dependence are rarely incontinent, whereas

Table 1.
Types of Urinary Incontinence

Type	Definition	Causes
Acute/Reversible (also called Functional UI)	Incontinence due to reversible factors, often outside of the urinary tract. Factors may be multiple and interacting.	<p>Delirium (confusional state)</p> <p>Symptomatic UTI</p> <p>Atrophic vaginitis/urethritis</p> <p>Medications:</p> <ul style="list-style-type: none"> • Sedative hypnotics • Diuretics (including alcohol and caffeine) • Anticholinergic agents • Alpha-adrenergic agents • Calcium channel blockers • ACE inhibitors • NSAIDs <p>Severe psychiatric disorders</p> <p>Excessive urine production:</p> <ul style="list-style-type: none"> • High fluid intake • Hyperglycemia • Congestive heart failure • Pedal edema <p>Restricted mobility:</p> <ul style="list-style-type: none"> • Sensory deprivation • Impaired walking ability • Cognitive impairment • Environmental barriers • Orthostatic hypotension • Stool Impaction
Urge (also called overactive bladder)	Leakage associated with an abrupt, strong desire to void	Involuntary bladder contractions
Stress	Leakage associated with coughing, laughing, sneezing, or other physical activities that increase abdominal pressure	Inadequate support of the urethra; severe urethral wall weakness or rigidity
Mixed Stress/Urge	Symptoms of both urge and stress UI	Combination of the causes of urge and stress UI
Overflow	Leakage associated with overdistension of the bladder	Failure of the bladder to empty due to either severe bladder weakness or blockage of the bladder outlet (eg, by prostate enlargement)

Adapted from: Agency for Healthcare Research and Quality Guidelines 1996.

Table 2.
Age-Related Changes That Affect the Bladder and Continence

Change	Effect
General Changes in Bladder Function <ul style="list-style-type: none"> • Reduced bladder capacity • Increased tendency of bladder to contract in response to filling and to “triggers” such as running water • Reduced strength of bladder contractions • Decreased awareness of bladder filling • Increased nighttime urine production 	<ul style="list-style-type: none"> • Increased frequency of urination • Increased urgency; more difficulty with bladder control (increased risk of leakage) • Increased potential for incomplete emptying • Reduced “response time”—ie, less time between awareness of need to urinate and time the bladder will contract and empty • Increased frequency of urination during nighttime hours
General Changes Outside the Bladder <ul style="list-style-type: none"> • Reduced mobility • Other health problems requiring medications 	<ul style="list-style-type: none"> • More time required to get to the bathroom • Prescribed medications may affect bladder function (ability to stretch and empty) or sphincter function (ability to hold urine in bladder)
Gender-Specific Changes: Male <ul style="list-style-type: none"> • Enlarged prostate 	<ul style="list-style-type: none"> • Difficulty emptying the bladder completely; may cause frequent and urgent urination and feelings of incomplete emptying
Gender-Specific Changes: Female <ul style="list-style-type: none"> • Reduced estrogen production resulting in increased tendency of bladder to contract and reduced ability of sphincter to provide enough resistance 	<ul style="list-style-type: none"> • Increased frequency of urination; sense of “urgency” to urinate; may have reduced ability to control the bladder • Increased risk of leakage with activity (eg, cough laugh, or sneeze)

Table 3.
Urinary Incontinence Risk Factors

Risk Factor	Rationale
Pregnancy and childbirth	Stretching and trauma to the pelvic floor muscles leading to pelvic nerve damage
Menopause	Estrogen depletion in hormone receptors in the lower urinary tract increasing the atrophy rate of the tissue of the vagina and urethra
Pelvic surgery, eg hysterectomy	Increased risk of incontinence secondary to pelvic nerve damage
Smoking	Chronic coughing aggravating stress UI. Nicotine may contribute to overactive bladder
Obesity	Morbid obesity slowing mobility and impairing blood flow or nerve innervation to the bladder
Exercise	High-impact physical activities increasing pressure on the bladder, leading to stress UI
Immobility secondary to chronic degenerative disease, eg arthritis	Inability to self-toilet
Pelvic muscle weakness	Pelvic muscle relaxation leading to pelvic organ prolapse in women
Chronic neurologic diseases	Conditions such as multiple sclerosis, diabetes, parkinson’s disease and stroke may cause nerve damage, thereby causing UI

residents with high levels of dependence because of impaired mobility are frequently incontinent.²

Although a healthcare professional may easily assess an individual’s incontinence on a scale ranging from “mild” to “heavy” based on the amount and frequency of urine loss, the effect of UI on a person’s quality of life can vary considerably. UI can contribute to sleep

deprivation, embarrassment, social withdrawal, depression, stress, and sexual dysfunction.³ A recent study concluded that elderly people who suffer from UI are more likely to have symptoms of depression than those without UI.⁴

Furthermore, the degree of depression is linked to the severity of incontinence, or the amount of urine lost with each “accident.” Researchers have found that the depression associated with UI makes it more diffi-

**Table 4.
Costs of Urinary Incontinence to Older
People (65+) in the United States**

\$58.4 million	Falls
\$380 million	Skin Care
\$390 million	Diagnostic Tests
\$667 million	Treatment
\$1.6 billion	Additional Admissions
\$4.2 billion	Home Care
\$4.2 billion	Urinary Tract Infections
\$6.2 billion	Longer Hospital Stays
\$10.2 billion	Routine Care

cult to persuade the individual to perform pelvic muscle exercises and bladder retraining, which may be necessary to reduce UI episodes.⁵ Meanwhile, UI can be associated with cellulitis, pressure ulcers, urinary tract infections (UTI), and falls and fractures. Hence, there are serious social, psychological, physical, and economic impacts stemming from UI. Conversely,

Continence depends on personal motivation to stay dry, mobility, manual dexterity, and the cognitive ability to recognize and react to bladder filling, as well as a well-working bladder and sphincter.

maintaining continence can increase a sense of independence and reinforce the feeling of well-being.

The emotional distress caused by UI also affects family members because many are still involved in the caregiving equation when an individual lives in AL. UI is known to lead to the decision to place an individual in a long-term care nursing facility. While the impact of UI on the relationship between family members and the AL resident needs more research to be fully understood, it is likely to cause guilt and confusion for the family members involved in a relative's care. For this

reason, these guidelines include a component of education not only for the resident and AL staff but also for involved family members. The more knowledgeable family members are of appropriate assessment, self-care measures for prevention, treatment, and management protocols, the more supportive they can be.

Although normal aging changes do not cause UI, they do create a situation that allows UI to occur. For example, the size and holding capacity of the bladder typically decrease with age. As a result, older persons need to urinate more often. Moreover, health disorders that are seen more frequently among older persons can contribute to UI, as reflected Table 2.

Continence depends on personal motivation to stay dry, mobility, manual dexterity, and the cognitive ability to recognize and react to bladder filling, as well as a well-working bladder and a sphincter. Any condition, medication, or factor that has direct effects on either lower urinary tract function, volume status, urine excretion, or the functional ability to toilet can increase the risk of incontinence. These are best summarized in Table 3.

While the impact of UI on quality of life for older persons is considerable, so are the costs of UI. One of the most comprehensive studies of the annual societal costs of UI was developed by Dr. Teh-Wei Hu at the University of California-Berkeley.⁶ Dr. Hu estimated the total economic cost of UI in the age group 65 and older in 1995 to be approximately \$27.9 billion, of which direct costs such as diagnosis, treatment, and products for management accounted for 85%. Elements included in his analysis are best represented graphically in Table 4.

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References

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These guidelines were drawn from the Blueprint for Continence Care, a spiral-bound guide for healthcare practitioners available from the National Association for Continence (NAFC). For additional resources and a complete list of available publications visit www.NAFC.org.